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10/542,575	07/19/2005	Torsten Olofsson	027651-276	6896

  

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EXAMINER	
BRUENJES, CHRISTOPHER P	

  

ART UNIT	PAPER NUMBER
1794	

  

NOTIFICATION DATE	DELIVERY MODE
10/18/2007	ELECTRONIC

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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<b>Office Action Summary</b>	<b>Application No.</b> 10/542,575	<b>Applicant(s)</b> OLOFSSON ET AL.	
	<b>Examiner</b> Christopher P. Bruenjes	<b>Art Unit</b> 1772	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 06 August 2007.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-27 is/are pending in the application.
- 4a) Of the above claim(s) 1-5, 21 and 22 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 6-20 and 23-27 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 19 July 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)  | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date <u>20050719</u> . | 6) <input type="checkbox"/> Other: _____  |

## DETAILED ACTION

### *Election/Restrictions*

1. Applicant's election without traverse of Group II, claims 6-20 and 23-27 in the reply filed on August 6, 2007 is acknowledged.
2. Claims 1-5 and 21-22 are withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected invention, there being no allowable generic or linking claim. Election was made **without** traverse in the reply filed on August 6, 2007.

### *Double Patenting*

3. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

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4. Claims 6-8, 13, 20 and 23-27 are provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-29 of copending Application No. 10/564,992. Although the conflicting claims are not identical, they are not patentably distinct from each other because the claims of application number 10/564,992 teach a packaging laminate comprising a carrier film covered with silicone oxide and a binding layer formed of a polyolefin grafted with an unsaturated alkoxysilane blended with a non-grafted polyolefin used to bond the silicon oxide to an adjacent layer (see claims 1 and 26-27). The claims teach the amount of all of the layers in the laminate so that the amount of binding layer and heat-sealable olefin polymer obviously fall within the claimed ranges. The binding layer is coextruded together with a polyolefin layer. The silicon oxide layer is PECVD deposited, wherein  $x=1.7-2.0$  and has a thickness of 50-500 angstroms or preferably 80 to 300 angstroms (see claims 12-13).

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

5. Claims 6-8, 13, 20 and 23-27 are provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-29 of copending Application No. 11/123,122. Although the conflicting claims are not identical, they are not patentably distinct from each other because the claims of application number 11/123,122 teach a packaging laminate comprising a carrier film covered with silicone oxide and a binding layer formed of a polyolefin grafted with an unsaturated alkoxysilane blended with a non-grafted polyolefin used to bond the silicon oxide to an adjacent layer (see claims 1 and 26-27). The

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claims teach the amount of all of the layers in the laminate so that the amount of binding layer and heat-sealable olefin polymer obviously fall within the claimed ranges. The binding layer is coextruded together with a polyolefin layer. The silicon oxide layer is PECVD deposited, wherein  $x=1.7-2.0$  and has a thickness of 50-500 angstroms (see claims 18).

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

6. Claims 6-8, 13, 20 and 23-27 are rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-17 of Olofsson et al, U.S. Patent No. 7,122,234, in view of Nagano (USPN 4,632,959).

Regarding claim 6, the claims of Olofsson et al teach a packaging laminate comprising a carrier film covered with silicone oxide (see claim 1) and a binding layer arranged to bond the silicone oxide to an adjacent layer in the laminate (see claim 9). Olofsson et al teach that the binding layer comprises a graft copolymer of alkoxysilane and polyethylene (see claim 10), but fail to teach that the graft copolymer of the binding layer is blended with a non-grafted polyolefin. However, Nagano teaches that to improve adhesion of modified or grafted polyolefins to polar materials the modified or grafted polyolefin is blended with a non-grafted polyethylene (col.1, 1.30- col.2, 1.5). Therefore, it would have been obvious to one having ordinary skill in the art at the time Applicant's invention was made to look for ways from the prior to improve the adhesive strength between the polar materials being adhered and the binding layer formed of modified or grafted polyolefin.

Thus, it would have been obvious to one having ordinary skill in the art at the time Applicant's invention was made to blend a non-grafted polyethylene with the modified or grafted polyolefin binder taught in Olofsson et al, in order to improve the adhesiveness of the binder to polar materials, as taught by Nagano.

Regarding claims 7 and 23-24, it would be obvious one having ordinary skill in the art to select the amount of binder present in the binding layer with in the claimed ranges because Olofsson et al is using the binding layer for the same purpose and teaches the thickness of the other layers in the laminate as well as percentages of how much the intermediate layer forms of the laminate. Therefore, it would have been obvious to one having ordinary skill in the art at the time Applicant's invention was made to arrive at an amount of binder in the laminate within the claimed ranges.

Regarding claim 8, the binding layer is bonded to the polyolefin intermediate layer (see claim 1).

Regarding claims 13 and 27, the silicone oxide layer is PECVD deposited, wherein  $x=1.7-2.0$  (see claim 1) and has a thickness of 50 to 500 angstroms and preferably 80 to 300 angstroms (see claims 11 and 12).

Regarding claim 20, the packaging laminate is used to form a packaging container (see claim 16).

Regarding claims 25-26, the second outermost layer is formed from a similar polyolefin as claimed and has a thickness between 18 and 30 micrometers (see claim 1). Therefore, it would have been obvious to one having ordinary skill in the art at the time Applicant's invention

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was made to form the second outermost layer with a basis weight within the claimed ranges based on the thickness range taught in Olofsson et al.

***Claim Objections***

7. Claims 6-20 and 23-27 are objected to because of the following informalities: the claims all depend on a non-elected claim. It is suggested that claim 6 should be rewritten in independent form. Appropriate correction is required.

***Claim Rejections - 35 USC § 112***

8. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

9. Claims 9-12, 14-19 and 25-26 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Regarding claim 9, the claim is dependent on claim 6 yet does not mention any of the layers and how they correlate to the laminate taught in claim 6. Specifically, the claim states “wherein it comprises” and then lists only layers that are new without any mention of a relationship with the laminate of claim 6. It is not clear whether claim 9 is attempting to redefine the packaging laminate or listing layers that are further comprised in the packaging laminate of claim 6.

Regarding claims 14 and 16, there is no antecedent basis for “the paper or paperboard bulk layer” or “the second outermost layer.”

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Regarding claim 18, there is no antecedent basis for "the paper or paperboard bulk layer."

Claims 10-12, 15, 17, 19, and 25-26 are rejected because they incorporate the indefinite limitations of the claims in which they depend.

***Claim Rejections - 35 USC § 103***

10. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

11. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

12. Claims 6-8, 13, 20 and 23-27 are rejected under 35 U.S.C. 103(a) as being obvious over Olofsson et al (USPN 7,122,234).

The applied reference has a common inventor with the instant application. Based upon the earlier effective U.S. filing date of the reference, it constitutes prior art only under 35 U.S.C. 102(e). This rejection under 35 U.S.C. 103(a) might be overcome by: (1) a showing under 37 CFR 1.132 that any invention disclosed but not claimed in the reference was derived from the inventor of this application and is thus not an invention "by another"; (2) a showing of a date of



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invention for the claimed subject matter of the application which corresponds to subject matter disclosed but not claimed in the reference, prior to the effective U.S. filing date of the reference under 37 CFR 1.131; or (3) an oath or declaration under 37 CFR 1.130 stating that the application and reference are currently owned by the same party and that the inventor named in the application is the prior inventor under 35 U.S.C. 104, together with a terminal disclaimer in accordance with 37 CFR 1.321(c). This rejection might also be overcome by showing that the reference is disqualified under 35 U.S.C. 103(c) as prior art in a rejection under 35 U.S.C. 103(a). See MPEP § 706.02(l)(1) and § 706.02(l)(2).

Regarding claim 6, the claims of Olofsson et al teach a packaging laminate comprising a carrier film covered with silicone oxide (see claim 1) and a binding layer arranged to bond the silicone oxide to an adjacent layer in the laminate (see claim 9). Olofsson et al teach that the binding layer comprises a graft copolymer of alkoxysilane and polyethylene (see claim 10), but fail to teach that the graft copolymer of the binding layer is blended with a non-grafted polyolefin. However, Nagano teaches that to improve adhesion of modified or grafted polyolefins to polar materials the modified or grafted polyolefin is blended with a non-grafted polyethylene (col.1, 1.30- col.2, 1.5). Therefore, it would have been obvious to one having ordinary skill in the art at the time Applicant's invention was made to look for ways from the prior to improve the adhesive strength between the polar materials being adhered and the binding layer formed of modified or grafted polyolefin.

Thus, it would have been obvious to one having ordinary skill in the art at the time Applicant's invention was made to blend a non-grafted polyethylene with the modified or grafted

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polyolefin binder taught in Olofsson et al, in order to improve the adhesiveness of the binder to polar materials, as taught by Nagano.

Regarding claims 7 and 23-24, it would be obvious one having ordinary skill in the art to select the amount of binder present in the binding layer within the claimed ranges because Olofsson et al is using the binding layer for the same purpose and teaches the thickness of the other layers in the laminate as well as percentages of how much the intermediate layer forms of the laminate. Therefore, it would have been obvious to one having ordinary skill in the art at the time Applicant's invention was made to arrive at an amount of binder in the laminate within the claimed ranges.

Regarding claim 8, the binding layer is bonded to the polyolefin intermediate layer (see claim 1).

Regarding claims 13 and 27, the silicone oxide layer is PECVD deposited, wherein  $x=1.7-2.0$  (see claim 1) and has a thickness of 50 to 500 angstroms and preferably 80 to 300 angstroms (see claims 11 and 12).

Regarding claim 20, the packaging laminate is used to form a packaging container (see claim 16).

Regarding claims 25-26, the second outermost layer is formed from a similar polyolefin as claimed and has a thickness between 18 and 30 micrometers (see claim 1). Therefore, it would have been obvious to one having ordinary skill in the art at the time Applicant's invention was made to form the second outermost layer with a basis weight within the claimed ranges based on the thickness range taught in Olofsson et al.

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13. Claims 6-8, 13-20, 23-24, and 27 are rejected under 35 U.S.C. 103(a) as being unpatentable over Breant et al (USPN 5,731,092) in view of Nagano (USPN 4,632,959).

Regarding claims 6, 8, and 14-20, Breant et al teach packaging material, which can form a packaging container, comprising a film covered with a silicon oxide layer, a binding adhesive layer binding the film covered silicon oxide to a polyolefin film. This structure is bonded to a paperboard material and the entire laminate is sandwiched by opposing heat sealable polyethylene sheets (col.1, 1.6-15). From this broad laminate teaching it is obvious the silicon oxide layer is placed on either side of the carrier layer in relation to the binder material and the paper polyolefin film is located on either side of the laminate in relation to the paperboard layer. Breant et al teach the adhesive layer is formed of polyolefins grafted with unsaturated alkoxysilanes (col.1, 1.30-35), but fail to teach that the grafted polyolefin is blended with a non-grafted polyolefin.

However, Nagano teaches that to improve adhesion of modified or grafted polyolefins to polar materials the modified or grafted polyolefin is blended with a non-grafted polyethylene (col.1, 1.30- col.2, 1.5). It would have been obvious to one having ordinary skill in the art at the time Applicant's invention was made to look for ways in the prior to improve the adhesive strength between the polar materials being adhered and the binding layer formed of modified or grafted polyolefin.

Therefore, it would have been obvious to one having ordinary skill in the art at the time Applicant's invention was made to blend a non-grafted polyethylene with the modified or grafted polyolefin binder taught in Breant et al, in order to improve the adhesiveness of the binder to polar materials, as taught by Nagano.

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Regarding claims 7 and 23-24, it would be obvious one having ordinary skill in the art to select the amount of binder present in the binding layer within the claimed ranges because Breant et al is using the binding layer for the same purpose and it would be obvious through routine experimentation to select an amount of binder that is sufficient to bond the layers while limiting the amount of binder used so as to limit the amount of materials used in construction to save cost.

Regarding claims 13 and 27, the silicone oxide layer is plasma deposited which results in  $x=1.7-2.0$  and has a thickness of 200 angstroms (col.3, l.57-60).

14. Claims 9-12 and 25-26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Breant et al in view of Nagano as applied to claim 6 above, and further in view of Hanyu et al (US 2002/0176974 A1).

Breant et al and Nagano teach all that is shown above and teaches that the outermost layers are formed of polyethylene, but fail to teach that the polyethylene is a metallocene polyethylene material. However, Hanyu et al teach that heat seal layers used on multilayer film packaging for packaging food products were traditionally formed from Ziegler-Natta catalysts (p.1, paragraphs 1 and 3). Hanyu et al teach that metallocene catalyzed copolymers containing polyethylene have an ultimate seal strength that is at least 30% greater than similar Ziegler-Natta catalyzed copolymers containing polyethylene (p.1, paragraph 9).

Therefore, it would have been obvious to one having ordinary skill in the art at the time Applicants invention was made to form the outermost layer of the packaging laminate of Breant et al from metallocene polyethylene material as opposed to Ziegler Natta catalyzed polyethylene

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because it provides the packaging laminate with improved heat seal strength and less energy to make the bond because of the lower seal initiation temperature of metallocene polyolefins, as taught by Hanyu et al.

Regarding claims 11 and 25-26, it would have been obvious to one having ordinary skill in the art to select the basis weight of the outermost layer within the claimed ranges because Breant et al is using the outermost layer for the same purpose and it would be obvious through routine experimentation to select an amount of outermost layer that is sufficient to heat seal the packaging laminate while limiting the amount of heat sealable material used so as to limit the amount of materials used in construction to save cost.

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Christopher P. Bruenjes whose telephone number is 571-272-1489. The examiner can normally be reached on Monday thru Friday from 8:30am-5:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Rena Dye can be reached on 571-272-3186. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



Christopher P Bruenjes  
Examiner  
Art Unit ~~1772~~ 1794

CPB  
October 13, 2007